

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014063**Date Inspected:** 01-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr.Tian Lei /Mr. Li Jia**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder(OBG)**Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

BAY-1

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) welding of weld joint 20TR1-045-011. Welder is identified as 203710. ZPMC Quality Control (QC) is identified as Mr. Ai wei. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U5-F.

BAY-2

FCAW Welding of weld joint FB3174-003-002. Welder is identified as 045203. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132- 3.

FCAW Welding of weld joint FB3174-001-001. Welder is identified as 062438. ZPMC Quality Control (QC) is identified as Mr. Zhu Jun. The welding variables recorded by QC appeared to comply with the Applicable WPS:

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WPS-B-T-2131- 3.

BAY-3

Submerged Arc Welding (SAW) welding of weld joint FB3166B-001-001. Welder is identified as 050502. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2221-B-L2c-S-2.

FCAW Welding of weld joint FB3162A-001-001. Welder is identified as 208035. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-B-U2-F-1.

BAY-6

Shielded Metal Arc Welding of weld joint WJF-0-077. Welder is identified as 215083. ZPMC Quality Control (QC) is identified as Mr. Shen jian guo. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-3312-TC-P5.

BAY-6

FCAW welding of weld joint USPL1-387-001. Welder is identified as 204342. ZPMC Quality Control (QC) is identified as Mr. Shu Yang hua. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2231-TC-U4b-F.

During the Quality Assurance random in-process observations of the fabrication of OBG Traveler Rail (TR) brackets, this Caltrans Quality Assurance Inspector (QA) observed ZPMC personnel flame straightening traveler rail base plate. The material was heated to a bright red condition. Per ZPMC Heat Straightening Report identified as HSR1 (B)-8405, the maximum temperature is 650 Degree Celsius. AWS D1.5 2002 defines the color of material heated to 650oC as a “dull red color”. A temperature indicating crayon, digital temperature measurement gauge, or other similar means of monitoring the temperature was not utilized by ZPMC QC and the actual maximum attained temperature was not measured. The Traveler rail is identified as TR6A-052. The base material thickness measured 30mm. A video of this worker heating this TR bracket has been put on the Caltrans server for review. It can be found under Team OBG//video archives//TR6A-052_B299_05-01-10_video_heat straightening. This QA Inspector generated an incident report on this date, for further information see the incident report and attached photograph.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

Only general conversation was held between QA and Quality Control (QC) concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer
